1989

'UD Chemistry Professor Investigating Ways to Offset Side Effects of Powerful Hypertension Drugs/UD Molecular Biologist's Research Helps Fight Arthritis

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UD CHEMISTRY PROFESSOR INVESTIGATING WAYS TO OFFSET SIDE EFFECTS OF POWERFUL HYPERTENSION DRUGS

People suffering from severe hypertension are often given medication that can drastically reduce their blood pressure. This can cause confusion and other adverse side effects. Under a $20,000 grant from the Ohio Affiliate of the American Heart Association, a University of Dayton professor is studying enzymes--particularly those that impact a person's adrenalin surge--with the hope of eventually helping major pharmaceutical companies design safer alternatives to such drugs.

The research is aimed at understanding how the drug Minoxidil works and why its side effects occur, according to Sanford Singer. In the laboratory, Singer and research technician Malcolm Lunderman are identifying the enzymes produced within the body when a person takes the medication and exploring the kind of biological activity that alters the heart rate.

According to the Dayton Chapter of the American Heart Association, approximately 60 million Americans suffer from high blood pressure, a cause of cardiovascular disease--the nation's leading killer.

"There are not enough good medications for hypertension," Singer said. "It's important to make every one of them count as much as possible."

Singer is also researching the enzymology of toxic effects of fluorinated drugs with a $22,000 grant from the Air Force and engaging in a study of liver disorders as part of a collaborative research project with the Veterans Administration Hospital. For media interviews, contact Sandy Singer at (513) 229-2833 or 229-2631.

UD MOLECULAR BIOLOGIST'S RESEARCH HELPS FIGHT ARTHRITIS

Panagiotis Tsonis, UD's newest professor of biology, is exploring ways to fight arthritis under a three-year $108,000 Arthritis Investigator's Award from the National Arthritis Foundation. Approximately 37 million Americans are inflicted with arthritis, according to the Southwestern Ohio Chapter of the Arthritis Foundation.

Tsonis, a molecular biologist, is studying gene expression in cartilage, the target tissue of arthritis. "Usually our immune system protects us from foreign invaders. Sometimes our body produces antibodies that go against proteins in our body and destroy the tissue--that's the case in arthritis," said Tsonis, who is isolating one of the four major genes in cartilage to determine how it can be regulated.

Tsonsis, who began the project at La Jolla Cancer Research Foundation in San Diego, is internationally known for his limb regeneration research. In Japan, his research on salamandar limb regeneration captured national headlines.

For media interviews, contact Panagiotis Tsonis at (513) 229-2579.

The University of Dayton

For further information or assistance in scheduling interviews, contact Office of Public Relations, (513) 229-3241.